



INSTITUTE FOR DEFENSE ANALYSES

**Review of the FY15
Defense Environmental International
Cooperation (DEIC) Program**

Susan Clark-Sestak, Project Leader

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Executive Summary

The Defense Environmental International Cooperation (DEIC) program is a tool available for the Office of the Secretary of Defense (OSD) and the Combatant Commands (CCMDs) to support security cooperation engagement activities with other nations. The DEIC projects focus on defense-related environmental or operational energy themes, with special priority placed on projects that promote the sustainment of mission capability and interoperability or the creation and enhancement of strategic partnerships and partner capabilities. The Institute for Defense Analyses (IDA) reviewed the execution of the Fiscal Year 2015 (FY15) DEIC program within each of the CCMD areas of responsibility (AORs) and assessed the overall program's performance for that year.

This document has three purposes. First, it serves as a record of what was accomplished during FY15 under the DEIC program and identifies the broader impacts that some of those activities have had. Second, it raises awareness about the program's activities among the CCMD leads for DEIC (and other interested personnel), thereby enhancing the cross-pollination of ideas and products developed under the DEIC program's auspices. Third, it offers a set of qualitative and quantitative metrics for evaluating the program. Among the most notable consequences of DEIC's activities this year were the reopening of an Italian training area for blank-fire training by U.S. and Italian forces and the minimization of potential environmental concerns in countries such as Afghanistan and Bahrain. The following table, "Impacts of DEIC Projects Executed by the Geographic CCMDs," characterizes the kinds of impacts each DEIC project executed by the CCMDs has had.

Impacts of DEIC Projects Executed by the Geographic CCMDs

	Support the (US) Warfighter	Contribute to Interoperability and/or Mission Sustainment	Build/Enhance Partner Capacity and Capability	Create/Strengthen Relationships with Other Countries	Promote Interagency Cooperation	Contribute to Others' Regional Leadership Capacity or to Regional Stability	Save U.S. Resources
Projects by CCMD							
AFRICOM							
Horn of Africa: Water Capacity Building Workshop (Ethiopia)			√	√	√	√	
Oil Spill Preparedness and Response (Djibouti)		√	√	√	√		
Implications of Climate Change on Military Activities and Human Security (S. Africa)			√	√		√	
Environmental Protection and Coastal Resiliency (Senegal)			√	√	√	√	
West Indian Ocean: Environmental Disaster and Oil Spill Response (Seychelles)			√	√	√	√	
Oil Spill Response Symposium (Mozambique)			√	√	√		
Base Camp Planning (Mali)			√	√			
CENTCOM							
Developing Afghan National Security Force Environmental Standard Operating Procedures (SOPs) (Afghanistan)	√	√	√		√	√	
Monitoring and Reporting of Illegal Discharges in the Regional Organization for the Protection of the Marine Environment (ROPME) Sea Area (United Arab Emirates (UAE))			√	√			√
EUCOM							
Arctic Security Forces Roundtable (ASFR) 2015 (Iceland)					√		
Environmental Considerations for Sustainable Base Development and Range Operations (Israel)		√		√			
Natura 2000 and Range Management Workshop (Italy)	√	√		√			
Implications of Climate Change on Military Activities (Bulgaria)			√	√	√		
PACOM							
Pacific Environmental Security Forum (PESF) 2015 and Follow-on Activities (Thailand)		√	√	√	√	√	
SOUTHCOM							
Establish Environmental Security Working Groups (Honduras; Brazil; Trinidad/Tobago)			√	√			
Meteorological and Oceanographic Capability and Needs Assessment (Colombia)			√	√			
Well Water Pollution Assessment (El Salvador)			√	√			
DCC Environmental and Energy Subcommittee (Chile)		√	√	√			
Defense-Related Environmental Issues Seminar (Inter-American Defense College (IADC))		√	√	√	√		

The following table, “Quantifiable Metrics for the DEIC Program and FY15 Results,” offers quantifiable metrics of all the 21 projects funded by DEIC in FY15.

Quantifiable Metrics for the DEIC Program and FY15 Results

Type of Metric	FY15 Results
Related to quantity of foreign engagements	
• Percentage of DEIC projects involving interaction with other nations	95% (20 of 21)
• Percentage of DEIC funding spent on engagements with other nations	91% (\$1.222M of \$1.346M)
• Ratio of the number of engagements with other nations to DEIC funding	20: \$1.346M, or \$67.3K average cost
• Number of foreign nationals engaged	1,000+
• Number of foreign nations engaged	61
Related to leveraging funding from other sources	
• Percentage of all DEIC projects that leveraged other funding	62% (13 of 21)
• Percentage of total spending on DEIC projects that was from other funding sources	35.3% (\$733K of \$2.079M)
• Number of CCMDs that leveraged other funding	4 (of 5)

For FY15, the DEIC program had a final budget of \$1,345,890. A three-member Advisory Group reviewed proposals totaling \$3,061,000 and then recommended to the Deputy Under Secretary of Defense for Installations and Environment (DUSD(I&E))¹ how these funds should be allocated. Of note, despite the small amount of funding and the challenges of executing an international program with funding available very late in the year, DEIC’s reach was extensive. More than 1,000 representatives from 61 nations participated in DEIC-funded activities during the year, and the program leveraged another \$733,000 in other sources of funding to execute these projects.

¹ The Office of the DUSD(I&E) has since been reorganized. It is now the Office of the Assistant Secretary of Defense for Energy, Installations and Environment (OASD(EI&E)).

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Contents

1.	Overview of the Defense Environmental International Cooperation (DEIC) Program and FY15 Execution	1
A.	Overview of the FY15 DEIC Program.....	1
B.	The DEIC Submission and Approval Process.....	2
2.	U.S. Africa Command (AFRICOM) Execution of DEIC Projects	7
A.	Ethiopia—Horn of Africa: Water Capacity Building Workshop (\$60K)	7
B.	Djibouti—Oil Spill Preparedness and Response (\$73K)	7
C.	South Africa—Implications of Climate Change on Military Activities and Human Security (\$49K)	7
D.	Senegal—Environmental Protection and Coastal Resiliency (\$59K).....	8
E.	Seychelles—West Indian Ocean: Environmental Disaster and Oil Spill Response (\$58K)	8
F.	Mozambique—Oil Spill Response Symposium (\$37K)	9
G.	Mali—Base Camp Planning (\$20K)	9
3.	U.S. Central Command (CENTCOM) Execution of DEIC Projects.....	11
A.	Afghanistan—Developing Afghan National Security Force Environmental SOPs (\$35K)	11
B.	UAE—Monitoring and Reporting of Illicit Discharges in the Regional Organization for the Protection of the Marine Environment (ROPME) Sea Area (\$19K).....	11
4.	U.S. European Command (EUCOM) Execution of DEIC Projects	13
A.	Iceland—Arctic Security Forces Roundtable (ASFR) 2015 (\$125K).....	13
B.	Israel—Environmental Considerations for Sustainable Base Development and Range Operations (\$40K).....	13
C.	Italy—Natura 2000 and Range Management Workshop (\$34K).....	13
D.	Bulgaria—Implications of Climate Change on Military Activities (\$40K).....	14
5.	U.S. Northern Command (NORTHCOM) Execution of DEIC Projects.....	15
6.	U.S. Pacific Command (PACOM) Execution of DEIC Projects.....	17
A.	Pacific Environmental Security Forum (PESF) 2015 and Follow-on Activities (\$212K)	17
B.	Maldives—Nilandhoo Island Waste Management Shared Vision Planning (\$35K)	17
7.	U.S. Southern Command (SOUTHCOM) Execution of DEIC Projects	19
A.	Honduras, Brazil, Trinidad-Tobago—Establish Environmental Security Working Groups (\$35K)	19
B.	Colombia—Meteorological and Oceanographic Capability and Needs Assessment (\$30K).....	19
C.	El Salvador—Well Water Pollution Assessment (\$35K) (Two Projects).....	19

D. Chile—Defense Consultative Commission (DCC) Environmental and Energy Subcommittee (\$60K)	20
E. Inter-American Defense College (IADC)—Defense-Related Environmental Issues Seminar (\$5K)	20
8. Global and Program Support Projects Executed under the DEIC Program	21
A. OSD Support for Quick Response on Herbicide Orange Issues (\$123.5K).....	21
B. Programmatic Tracking and Research Support to DEIC (from IDA) (\$161.5K)	21
9. Program Assessment	23
A. FY15 Accomplishments	23
B. Recommendations	27
Appendix A . Defense Environmental International Cooperation (DEIC) FY15 Call for Proposals and Meeting Participation	A-1
Appendix B . Defense Environmental International Cooperation (DEIC) FY15 Approved Program	B-1
Appendix C . Defense Environmental International Cooperation (DEIC) FY15 Spreadsheet.....	C-1
Appendix D . Illustrations.....	D-1
Appendix E . References.....	E-1
Appendix F . Abbreviations.....	F-1

1. Overview of the Defense Environmental International Cooperation (DEIC) Program and FY15 Execution

In previous assessments of the DEIC program, the Institute for Defense Analyses (IDA) described the purposes of DEIC and the types of activities that it has funded.² This document focuses on the execution of the Fiscal Year 2015 (FY15) program, identifies several larger benefits derived from DEIC activities, and offers additional ways to measure the impact of this program.

A. Overview of the FY15 DEIC Program

The DEIC program, which resides within the Environment, Safety, and Occupational Health (ESOH) office of the Deputy Under Secretary of Defense for Installations and Environment (DUSD(I&E)),³ was originally funded in FY15 at \$1,642,000. The approved budget was initially \$1,314,000 and was subsequently adjusted to \$1,386,000. This decline in the approved budget compared to the original budget is important because it is a trend that is replicated each year, primarily as a result of the “tax” imposed on Office of the Secretary of Defense (OSD) programs across the board.

Of the approved budget, as of October 2015, a total of \$96,077 was returned (or planned to be returned) to DUSD(I&E) by two of the Combatant Commands (CCMDs). The reasons for the returns varied and are described in Table 1. While much of this funding was returned early enough in the year so that it could be reprogrammed for other DEIC activities, it was not possible to reprogram the entire amount. As a result, some funds that were returned to OSD were reallocated to address other ESOH requirements. By the conclusion of the fiscal year, the actual program budget was \$1,345,890. The final DEIC budget was thus 18 percent less than its original budget.⁴

² See Susan L. Clark-Sestak and Ashley Neese Bybee, *Review of the Fiscal Year 2013 (FY13) Defense Environmental International Cooperation Program*, IDA Document D-5129 (Alexandria, VA: Institute for Defense Analyses, February 2014).

³ The Office of DUSD(I&E) has since been reorganized. It is now the Office of the Assistant Secretary of Defense for Energy, Installations and Environment (ASD(EI&E)).

⁴ Subsequent to the end of FY15, during the process of final reconciliation of funds and as of the writing of this report, approximately \$5K was in the process of being returned to OSD by the U.S. European Command (EUCOM) and the U.S. Southern Command (SOUTHCOM) due to either differences between program execution and cost estimates or accounting errors.

Table 1. DEIC Program Funding Returned by CCMD and Reasons for Return

CCMD	Amount Returned	Reason
Central Command	\$73,000.00	Unable to execute one project before end-FY15 due to host nation constraints. Scope and substance of the other project was altered.
Northern Command	\$13,000.00	Funding not available when needed due to Continuing Resolution (CR), so the project could not be executed.

Over the last several years, the federal government's CR has had a negative impact on the consistency with which DEIC program funds can be made available. In FY15, this situation was exacerbated by staff turnover in DEIC's OSD office. Whereas in previous years at least some amount of funding went to most of the CCMDs during the first quarter of the fiscal year, in FY15, only EUROC received any funding during that period. All other funds were made available to the CCMDs only in February 2015 or later. These delays could not help but affect the CCMDs' ability to execute their approved projects.

B. The DEIC Submission and Approval Process

The DUSD(I&E) released the FY15 Call for Proposals and Meeting Participation memorandum in May 2014 (see Appendix A), which provided guidance on the DEIC program's priorities. The project proposals submitted for the DEIC Advisory Group's consideration totaled \$3,041,000,⁵ of which the Advisory Group found all but \$189,000 (or 6 percent) to be valid requirements appropriate for DEIC funding. The FY15 DEIC approved program was announced by DUSD(I&E) in a December 2014 memorandum (see Appendix B). The size of the requested amount for valid activities is evidence that the CCMDs continue to have requirements and interests in DEIC activities well in excess of the available budget.

Appendix C contains the spreadsheet listing all projects submitted for DEIC consideration. As in previous years, the Advisory Group continued the approach of identifying those projects that should have the highest priority (their funding is listed in the "Approved" column of the spreadsheet) along with those projects also deemed valid but with lower priority (listed in the "Reconsider" column). Other projects (with no funding listed in either column) were deemed not appropriate for DEIC funding by the Advisory Group. In addition to the guidance provided in the call for proposals memorandum (see Appendix A), a number of factors were considered during the Advisory Group meeting

⁵ An additional \$20,000 project was approved in July 2015 that was not included in the original approval memorandum.

when determining a project's funding category, but these factors are not specifically prioritized since their applicability and prominence can vary by topic, country, and region. These criteria are routinely addressed during the Advisory Group's discussions with each of the CCMDs and include (but are not limited to) the following:

- The project's ability to support the warfighter or contribute to interoperability and/or mission sustainment.
- The extent to which the engagement opens opportunities for a new or expanded relationship with a country (or, on the contrary, whether so many activities are already ongoing in the country that this effort would have little perceptible impact).
- The project's ability to build or enhance the partner nation's capacity and capabilities in the proposed topic area.
- The involvement of host nation defense personnel in the project. (While the involvement of additional agencies is welcomed—indeed, desirable—the participation of defense personnel (either uniformed or civilian) is a necessity.)
- The exposure of participants to the concept of interagency cooperation (whole-of-government approaches), thereby enhancing their understanding each other's roles and responsibilities.
- The potential for the project to contribute to the host nation's ability to serve a regional leadership role or to otherwise promote regional stability.
- The level of “interest” that the CCMD (or OSD) has in engaging with the given country, which draws on the CCMD’s Theater Security Cooperation (TSC) plans and other relevant Department of Defense (DOD) and national-level documents.
- Where the project ranks in the CCMD’s own prioritization of its proposals. (Each CCMD must rank order all proposals it has submitted.)
- The perceived ability of the CCMD and host nation to execute the project as proposed.
- The balance of projects and funding across the CCMDs, taking many of the previous factors into consideration.

The Advisory Group’s recommended funding for projects in the “Approved” column in attachment 1 of the approval memorandum (Table C-1 totaled approximately 80 percent of the original budget, a decision driven (as in previous years) by anticipated budget cuts and the challenges imposed by operating under the CR. If one of these projects could not be executed for any reason, the Advisory Group had a range of valid projects in the “Reconsider” column from which to choose, thereby offering the

flexibility to decide which projects were most likely to be executable within the remainder of the fiscal year. This approach recognizes the challenges of operating an engagement program with many different nations in times of considerable budget uncertainty. Indeed, a number of projects had to be rescheduled or relocated, often because of delayed funding and/or host nation considerations, as shown in Table C-1.

Figure 1 illustrates the allocation of funding by area of responsibility (AOR) as ultimately executed. The CCMD summaries provided in Chapters 2–8 of this document offer more detail on the execution of the individual projects. The after action reports (AARs), agendas, participant lists, and many of the presentations for each project have been captured and loaded onto the DEIC working group page of the All Partners Access Network (APAN) website.⁶

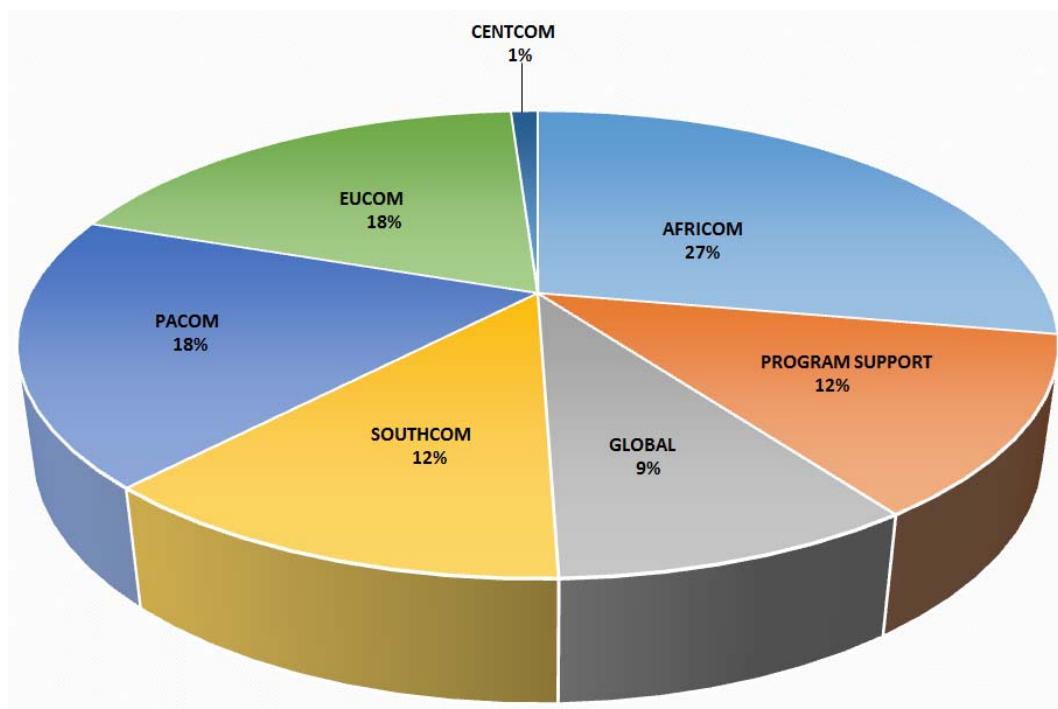


Figure 1. DEIC Program FY15 Spending, by AOR

The projects in the following chapters are listed in the order in which they appear on the FY15 spreadsheet (see Appendix C). As described previously, this spreadsheet lists all of the proposed projects, the DEIC funds requested for each project, the funding for approved projects, projects to be reconsidered, and the funding levels as actually executed (“Actual” column). Because, in many cases, the funding sent to the CCMDs for these projects was supplemented by other funding sources, the spreadsheet also lists the

⁶ The DEIC portion of the website is password-protected and accessible to members of the DEIC community.

amount of any such additional funding. Indeed, across all the CCMDs, another \$730,000 in funding was used to help execute the approved DEIC projects. Of the 22 DEIC projects representing executed activities in FY15, 13 of these projects (or 59 percent) used other sources of funding. This funding came from a wide variety of sources, such as the Traditional Commander's Activity (TCA), Title 10, the Asia Pacific Regional Initiative (APRI) program, the U.S. Army Europe (USAREUR), the United Nations Environmental Program (UNEP), the U.S. Army Engineer Research and Development Center (ERDC), and South Africa's Council for Scientific and Industrial Research (CSIR). In addition, any number of U.S. government and non-U.S. institutions provided the labor of their subject matter experts (SMEs) at no cost to the DEIC projects, a contribution that is not captured in Figure 1. The ability and willingness to secure additional funding sources and to provide manpower is another indication of the value that the CCMDs and other organizations attach to DEIC activities.

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2. U.S. Africa Command (AFRICOM) Execution of DEIC Projects

DUSD(I&E) approved \$238,000 in projects for the AFRICOM AOR and another \$384,000 in projects eligible for reconsideration. As additional funds became available, actual funding for this AOR reached \$356,000 for the execution of seven projects. AFRICOM leveraged these DEIC funds with another \$290,000 from a variety of other U.S. and international funding sources. The executed projects in the AFRICOM AOR and some of their key themes or findings are described in the sections that follow.

A. Ethiopia—Horn of Africa: Water Capacity Building Workshop (\$60K)

The objectives of this workshop, held in August 2015 at the University of Addis Ababa, were to promote interagency cooperation, identify institutional responsibilities, and strengthen water security capacity in the Horn of Africa region through the participation of Kenyan and Ethiopian representatives. The 47 participants came not only from both countries' defense establishments, but also from the academic community and other government ministries. As a result of the workshop, the two African nations identified ways to continue progress in this area, including creating social networks to enhance communication among themselves, replicating the workshop within their organizations at other levels, conducting joint exercises, and developing Memoranda of Understanding (MOUs) with neighboring countries.

B. Djibouti—Oil Spill Preparedness and Response (\$73K)

The main aim of the workshop, held in September 2015 with the participation of more than 30 stakeholders from the military, other government agencies, and port authorities, was to establish a baseline of knowledge about oil spill response strategies and planning. Through an exchange of information, the U.S. and Djibouti participants became familiar with each other's existing oil and hazardous response planning and procedures. The symposium also presented an opportunity to identify gaps in information where procedures may need to be developed or improved to help ensure integrated and effective coordination between the Navy and host nation in the event of an oil or hazardous substance spill.

C. South Africa—Implications of Climate Change on Military Activities and Human Security (\$49K)

While the implications of climate change was one topic addressed during this May 2015 engagement, the main focus was to reestablish a relationship between the U.S.

DOD and South African National Defence Forces (SANDF) on environmental topics. This relationship had been robust for more than a decade under the U.S.-South African Defense Committee but was suspended in 2012. SANDF expressed an interest in reviving it in 2015. Identified areas for collaboration over the coming 3 to 5 years include participation in a Southern African region-wide effort to address wildlife trafficking and its destabilizing effects, joint development of course materials for environmental officers, a workshop on the importance of civil-military relationship building, and conducting energy assessments at military facilities. In many of these areas, the intent is to share these products within the Southern African region, with SANDF playing a regional leadership role.

D. Senegal—Environmental Protection and Coastal Resiliency (\$59K)

At the request of Senegal's Ministry of Environment, which is concerned about rapid coastal erosion due to climate change, AFRICOM co-hosted a workshop on coastal resiliency with UNEP in November 2015.⁷ More than 85 stakeholders participated in the symposium, including representatives from the Ministries of Defence, Environment, and Justice, and it is expected that this bilateral event successfully laid the foundation for environmental security cooperation in the broader Western African region. The particular focus of this event was on ways to improve disaster risk management and to promote civil-military cooperation in this field. The symposium also addressed planning for multiple stressors, the adaptive capacity of coastal cities, and remote sensing techniques.

E. Seychelles—West Indian Ocean: Environmental Disaster and Oil Spill Response (\$58K)

The 8th Conference of the Parties Convention for Cooperation in the Protection, Management, and Development of the Marine and Coastal Environment was attended by more than 200 stakeholders in June 2015 in Mahe, Seychelles. This meeting was held in conjunction with working groups focused on science and technology, partnerships, and the Abidjan Convention. In addition to the participants from Seychelles, other participants came from Comoros, France, Kenya, Madagascar, Mauritius, Mozambique, Somalia, Tanzania, and South Africa. AFRICOM participated in the working groups, developing new partnerships to help build capacity in coastal resiliency, maritime safety and security, and environmental protection in general.

⁷ While this workshop was conducted in FY16, virtually all costs were incurred in and supported by FY15 funds. Thus, it is described in this document.

F. Mozambique—Oil Spill Response Symposium (\$37K)

In April 2015, more than 25 representatives from the Mozambique military, Department of Risk and Disaster Management, Ministry of Environment, the Port Authority, and members of Non-Governmental Organizations (NGOs) and industry gathered to review the country's oil spill response plan and use it as a framework for discussing potential oil spill scenarios. These discussions helped identify gaps in institutional responsibilities, tiered response coverage, and the ability to act in a timely manner in the event of a large-scale oil spill. It was requested that a follow-on workshop be organized to help address these identified gaps.

G. Mali—Base Camp Planning (\$20K)

In August 2015, AFRICOM and the U.S. Army Corps of Engineers (USACE) met with 15 senior Mali military personnel to develop base camp design capability within the Mali military. The specific focus was on a standardized template for an environmentally and energy sustainable program to support a 600- to 1,000-person military installation. Following 2 days of intense classroom instruction, the participants used this knowledge to review the USACE-developed Base Design Template and provided their input.

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3. U.S. Central Command (CENTCOM) Execution of DEIC Projects

DUSD(I&E) approved \$127,000 for two projects in the CENTCOM AOR and \$24,000 in additional funding for one of those projects, subject to the availability of additional funds. CENTCOM used a total of \$54,000 for executing one project and for planning for the workshop with Afghanistan. The latter was executed in October 2015, and, because most of the expenditure was incurred in FY15, it is summarized in Section A. While the other approved project was supposed to focus on basing sustainability in Oman, CENTCOM subsequently replaced it unilaterally with a follow-on project to a FY14-funded event on ship discharges.

A. Afghanistan—Developing Afghan National Security Force Environmental SOPs (\$35K)

In October 2015, a workshop with over 100 representatives from the Afghan National Defense and Security Forces (ANDSF) and Department of Interior and other organizations focused on assisting the ANDSF in building environmental policy frameworks, reviewing past environmental performance and identifying opportunities for improvement, and developing effective communication techniques. The workshop also aimed to improve ANDSF's understanding of coalition environmental management techniques and performance and shared Afghan-centric environmental education. Through these interactions, the goals of the workshop were to reduce long-term coalition environmental costs, strengthen ANDSF's commitment to finalizing its environmental policies through interagency collaboration, and facilitate the reuse of former coalition bases.

B. UAE—Monitoring and Reporting of Illicit Discharges in the Regional Organization for the Protection of the Marine Environment (ROPME) Sea Area (\$19K)

In May 2015, CENTCOM, with subject matter expertise from U.S. Navy Region Europe, Africa, and Southwest Asia and the Marine Emergency Mutual Aid Center (MEMAC), conducted a follow-on workshop on monitoring and reporting illegal discharges of oil and other hazardous substances from ships. The first workshop was held in Kuwait in 2014, and the second workshop was hosted by the United Arab Emirates (UAE) in 2015. The most recent workshop had a total of 59 participants from Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the UAE and focused on ways to address identified gaps in monitoring capabilities within their own countries and in the region as a whole. As a result of these two workshops and other environmental engagements with

Bahrain, the U.S. Navy has reported that it is now avoiding over \$1 million annually in hazardous waste disposal costs and has reduced potential disposal liabilities.⁸

⁸ As noted in “Oil Spill Preparedness and Response-GCC Area,” CENTCOM’s FY16 DEIC proposal (17 December 2015).

4. U.S. European Command (EUCOM) Execution of DEIC Projects

DUSD(I&E) approved \$239,000 in projects for the EUCOM AOR and another \$419,000 in projects eligible for reconsideration. Actual funding for this AOR remained at the approved amount for the execution of four projects. The executed projects in the EUCOM AOR and some of their key themes or findings are described in the sections that follow.

A. Iceland—Arctic Security Forces Roundtable (ASFR) 2015 (\$125K)

Now in its fourth year, ASFR is a flag/general officer-level theater security cooperation event designed to promote regional understanding, dialogue, and cooperation among the Arctic nations. In May 2015, 29 representatives from the Arctic nations of Canada, Denmark, Finland, Iceland, and Norway and from four observer nations (France, Germany, the Netherlands, and the United Kingdom) joined U.S. representatives and convened in Reykjavik, Iceland. The focus of the 2015 ASFR was on better understanding the operations in the North Atlantic from an industry perspective. While remaining an important dialogue tool, it therefore had a weaker connection to the DEIC objectives of the military-environmental nexus than in previous years.

B. Israel—Environmental Considerations for Sustainable Base Development and Range Operations (\$40K)

A four-person U.S. team met with a number of Israeli defense, academic, and industry representatives during a week-long familiarization visit in Israel. Topics included Israeli efforts to “build green” when creating new military facilities; the benefits (and necessity) of close collaboration between the Israeli Defense Forces (IDF) and the Israel National Parks Authority to ensure environmental protection while also meeting military training requirements; ways to raise environmental awareness; and Israeli industry work in the areas of environment and energy. The familiarization visit helped identify common areas of interest for follow-on activities, including integrated training area management, strategic communications, relevant remediation techniques, and green facilities.

C. Italy—Natura 2000 and Range Management Workshop (\$34K)

In June 2015, USAREUR training area management SMEs met with some 60 representatives from the Italian military and from regional and local governments. The workshop accomplished its objectives of establishing a dialogue, sharing information about training area management best practices (including those practices in connection with

European Union Natura 2000), and developing relationships with and between Italian military and civilian representatives. Significantly, the event also contributed to resolving an issue of direct relevance to the warfighter. For several years, U.S. and Italian forces had not been allowed to use an Italian training area near Aviano because of claims of environmental stress and Natura 2000 restrictions. Following this workshop, the Italian regional authority, based on the common understanding of the impacts of training on the environment that emerged during the workshop, allowed resumption of blank-fire training by U.S. and Italian forces. Range managers are optimistic that heavy-drop training will also eventually be reinstated.

D. Bulgaria—Implications of Climate Change on Military Activities (\$40K)

A 3-day workshop, which began on 30 March 2015, brought U.S. and United Nations SMEs together with 44 representatives primarily from Bulgaria but also from Kosovo, Montenegro, Germany, Poland, and Spain. The workshop focused on understanding flooding vulnerability and disaster management challenges through capacity building, stakeholder engagement, and technical exchanges. The importance of civilian-military cooperation was an underlying theme throughout the discussions. Primary workshop objectives included understanding key terms associated with disaster risk management in academic and operational contexts; highlighting current disaster risk management capacity across the various participant-represented sectors; and identifying ways forward, based on participant interests and identified gaps in knowledge and/or expertise. Bulgaria has since applied for and received support from the North Atlantic Treaty Organization (NATO) for a follow-on workshop to address some of these identified gaps.

5. U.S. Northern Command (NORTHCOM) Execution of DEIC Projects

NORTHCOM submitted one proposal, which was approved for funding by DUSD(I&E) for \$13,000. Due to the CR, however, OSD was not able to supply NORTHCOM the funds on the timeline needed, and NORTHCOM was not able to execute the project. The funds were returned to OSD and subsequently made available to AFRICOM.

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6. U.S. Pacific Command (PACOM) Execution of DEIC Projects

DUSD(I&E) approved \$247,000 in projects for the PACOM AOR and another \$184,000 in projects eligible for reconsideration. Actual funding for this AOR was at the approved level of \$247,000 for two projects. PACOM also secured \$240,000 in other sources of funding for the execution of the Pacific Environmental Security Forum. The executed projects in the PACOM AOR and some of their key themes or findings are described in the sections that follow.

A. Pacific Environmental Security Forum (PESF) 2015 and Follow-on Activities (\$212K)

The annual PESF was the fifth such event and was co-hosted by the Thai Ministry of Defence in June 2015. As in previous years, this forum received high-level support from the PACOM leadership. One hundred fifteen participants from Australia, Bangladesh, Cambodia, China, India, Indonesia, Korea, Lao PDR, Malaysia, Maldives, Mongolia, Nauru, Nepal, Palau, Papua New Guinea, Philippines, Samoa, Sri Lanka, Thailand, Tuvalu, and Vietnam joined a U.S. interagency team to address environmental security issues. The 2015 PESF themes were climate change impacts, protection of the commons, and defense environmental programs. Each theme consisted of three to five lectures by international SMEs, a panel discussion, and either a tabletop exercise or field trip. On the fourth day, participants developed regionally focused projects for potential future collaboration. Because the cost of PESF was less than originally estimated (in part, due to change in location), PACOM used the remaining DEIC funds for follow-on activities identified during PESF, including initiatives with Mongolia, continuing collaboration with Maldives, and initial preparation for the FY16 PESF. As in previous years, PESF showcased U.S. leadership on environmental issues, the strength of regional partnerships, and the value of interagency approaches. As a result of U.S. engagements with Thailand in this and previous DEIC-sponsored activities, Thailand has announced its intention to develop a climate chance policy based on DOD's Climate Change Adaptation Roadmap.

B. Maldives—Nilandhoo Island Waste Management Shared Vision Planning (\$35K)

Planning for this event was conducted in FY15; however, due to host nation constraints, execution of the project was delayed until FY16.

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7. U.S. Southern Command (SOUTHCOM) Execution of DEIC Projects

DUSD(I&E) approved \$165,000 in projects for the SOUTHCOM AOR and another \$262,000 in projects eligible for reconsideration. Actual funding for this AOR was at the approved level of \$165,000 for six projects. The executed projects in the SOUTHCOM AOR and some of their key themes or findings are described in the sections that follow.

A. Honduras, Brazil, Trinidad-Tobago—Establish Environmental Security Working Groups (\$35K)

In October 2016, Trinidad and Tobago will host the next biennial Conference of Defense Ministers of the Americas (CDMA). In preparation for this CDMA, in March 2015, SOUTHCOM shared information with its counterparts on energy and environmental security and sustainability. As a result, the Trinidad and Tobago Defence Force identified specific areas of U.S. expertise on which it could draw to satisfy CDMA mandates, namely, environmental management systems for the military, management of endangered species, climate change implications for the military, and energy, water and waste management capabilities. This project also covered bilateral meetings with Honduras in August 2015 and Brazil in September 2015.

B. Colombia—Meteorological and Oceanographic Capability and Needs Assessment (\$30K)

In August 2015, a U.S. Air Force SME team met with 11 weather personnel from the Colombian Air Force's meteorological organization. Based on interviews with and presentations by a number of this organization's staff, the U.S. team developed a set of recommendations to address the challenges that this small and overtaxed organization faces. Chief among the recommendations was the development and standardization of the weather training program for all its enlisted weather personnel.

C. El Salvador—Well Water Pollution Assessment (\$35K) (Two Projects)

An initial assessment of well-water pollution at the peacekeeping school base camp in Libertad, El Salvador, was conducted in June 2015. The U.S. team members shared information on wellhead protection and also conducted an on-site inspection of the well water and associated distribution system and groundwater quality, during which potential improvements were identified. When one of the other approved SOUTHCOM projects could not be executed, the DEIC funds were applied to a second engagement with El Salvador on this topic. A follow-up to the same location occurred in late September 2015,

during which the U.S. team reviewed what El Salvador would need to pursue the wellhead protection plan that was developed as a result of the first meeting. During these two engagements, 10 representatives from the El Salvadoran military and the Civil Engineering Department of the Polytechnic University participated.

D. Chile—Defense Consultative Commission (DCC) Environmental and Energy Subcommittee (\$60K)

The DCC’s Environment and Energy Subcommittee met in March 2015 in Chile and in July 2015 in Washington, DC. The group developed and had approved a 2-year work plan with a specific initiative in each of three core areas: operational risk management (identifying environmental risks for steady state operations and ways to mitigate those risks); energy, water, and waste aspects of mission sustainability; and better understanding the potential effects of climate change on the military.

E. Inter-American Defense College (IADC)—Defense-Related Environmental Issues Seminar (\$5K)

In August 2015, SOUTHCOM presented a briefing on the direct and indirect consequences of natural and man-made disasters to some 85 representatives of partner nations at the IADC. The presentation covered topics such as the changes in frequency and intensity of disasters, the types of impacts these disasters can have using case study examples, and the necessity of adopting whole-of-government approaches to address resiliency and response capabilities.

8. Global and Program Support Projects Executed under the DEIC Program

The ESOH office also uses DEIC money for global and programmatic support. In FY15, DUSD(I&E) approved a total of \$125,000 and \$160,000, respectively, for these activities. Actual execution was \$123,500 and \$161,500.

A. OSD Support for Quick Response on Herbicide Orange Issues (\$123.5K)

ESOH, through the Armed Forces Pest Management Board (AFPMB), continues to receive occasional inquiries concerning the presence and/or use of Herbicide Orange in the 1960s and 1970s. Some of these inquiries are raised in the context of DOD's contacts with Vietnam, Japan, and South Korea. This project supported subject matter expertise to draft responses to such inquiries. While this project did not include interactions with foreign nationals, ESOH lacks the in-house expertise to perform this work and determined that DEIC was the only available source of funding for this work.

B. Programmatic Tracking and Research Support to DEIC (from IDA) (\$161.5K)

ESOH, as part of its execution of the DEIC program, relies on Federally Funded Research and Development (FFRDC) support from IDA to track DEIC activities throughout the year and to participate at ESOH's request in several of the engagement initiatives. During FY15, the engagements included workshops with Sweden and Finland to begin the development of an annex on cold regions to supplement the previously developed Environmental Toolbox for Deploying Forces; meetings with the SANDF's environmental team to reinvigorate bilateral cooperation; and meetings with Israeli defense representatives on sustainable base development. These activities are described in more detail in Chapters 2 and 4. The FFRDC support also included the review presented in this document.

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9. Program Assessment

A. FY15 Accomplishments

The DEIC program continues to serve as a successful engagement tool with other nations on environmental issues. It contributes to the development of military-to-military relationships and interagency contacts—not only between the United States and the partner nation(s), but also within and among those partner nations.

The impact of the DEIC program can be assessed in a number of ways. Table 2 lists each of the 20 projects executed by the CCMDs, and the types of impacts that each project has had. These impacts are some of the criteria that the Advisory Group uses in making its recommendations about which projects DEIC should fund, as described in Chapter 1. As the table makes clear, at least two categories are applicable to every project. In general, it has been recognized that DEIC plays a critical role “because of the military institutions and environmental security themes upon which it focuses, the holistic governmental approach it fosters, and the regional collaboration and dialogue it champions.”⁹

⁹ Marius Claassen et al., “Ground Zero: Water Security in the Nile Basin,” in *The White and Blue Nile: Water Security, Land Use Dynamics, Climate Variability, and Environmental Health*, ed. Shimelis G. Setegn, forthcoming.

Table 2. Impacts of DEIC Projects Executed by the Geographic CCMDs

Projects by CCMD	Support the (US) Warfighter	Contribute to Interoperability and/or Mission Sustainment	Build/Enhance Partner Capacity and Capability	Create/Strengthen Relationships with Other Countries	Promote Interagency Cooperation	Contribute to Others' Regional Leadership Capacity or to Regional Stability	Save U.S. Resources
AFRICOM							
Horn of Africa: Water Capacity Building Workshop (Ethiopia)			✓	✓	✓	✓	
Oil Spill Preparedness and Response (Djibouti)		✓	✓	✓	✓		
Implications of Climate Change on Military Activities and Human Security (S. Africa)			✓	✓		✓	
Environmental Protection and Coastal Resiliency (Senegal)			✓	✓	✓	✓	
West Indian Ocean: Environmental Disaster and Oil Spill Response (Seychelles)			✓	✓	✓	✓	
Oil Spill Response Symposium (Mozambique)			✓	✓	✓		
Base Camp Planning (Mali)			✓	✓			
CENTCOM							
Developing Afghan National Security Force Environmental SOPs (Afghanistan)	✓	✓	✓		✓	✓	
Monitoring and Reporting of Illegal Discharges in the ROPME Sea Area (UAE)			✓	✓			✓
EUCOM							
Arctic Security Forces Roundtable (ASFR) 2015 (Iceland)				✓			
Environmental Considerations for Sustainable Base Development and Range Operations (Israel)		✓		✓			
Natura 2000 and Range Management Workshop (Italy)	✓	✓		✓			
Implications of Climate Change on Military Activities (Bulgaria)			✓	✓	✓		
PACOM							
Pacific Environmental Security Forum (PESF) 2015 and Follow-on Activities (Thailand)		✓	✓	✓	✓	✓	
SOUTHCOM							
Establish Environmental Security Working Groups (Honduras; Brazil; Trinidad/Tobago)			✓	✓			
Meteorological and Oceanographic Capability and Needs Assessment (Colombia)			✓	✓			
Well Water Pollution Assessment (El Salvador)			✓	✓			
DCC Environmental and Energy Subcommittee (Chile)		✓	✓	✓			
Defense-Related Environmental Issues Seminar (IADC)		✓	✓	✓	✓		

The following synopses¹⁰ describe some of these effects in more detail. These examples are not meant to be exhaustive, but rather illustrative of the value of DEIC-sponsored events.

- *Support the warfighter.* For several years, U.S. and Italian forces had not been allowed to use an Italian training area near Aviano because of claims of environmental stress and European Union Natura 2000 restrictions. The June 2015 DEIC workshop, which focused on sustainable training area management, helped develop a common understanding of the impacts of training on the environment. As a result, the Italian regional authority allowed the resumption of blank-fire training by U.S. and Italian forces at this installation, and heavy-drop training may also be allowed to resume in the future.
- *Contribute to interoperability, mission sustainment.* The DEIC workshop in Djibouti identified gaps in information where oil and hazardous waste procedures may need to be developed or improved to help ensure integrated and effective coordination between the Navy and the host nation in the event of an oil or hazardous substance spill. Working to address these gaps will help ensure interoperability between U.S. and host nation assets.
- *Build or enhance partner capacity and capability.*
 - As a result of the relationships developed through PESF, Thailand has announced plans to develop a climate change policy based on DOD's Climate Change Adaptation Roadmap.
 - With changing mission requirements and coalition bases being turned over to Afghanistan, CENTCOM's workshop with the ANDSF sought to develop the latter's environmental awareness and capacity.
- *Create or strengthen relationships with other countries.* Through DEIC-supported engagements, SOUTHCOM has expanded its collaboration with the IADC and the Western Hemisphere Institute for Security Cooperation (WHINSEC), with the aim of eventually integrating environmental considerations into the curricula of these institutions. Their students are senior and mid-career officers, respectively. Through these partnerships, SOUTHCOM has reached a broader and more influential audience, with greater potential for long-lasting continuity and impacts.

¹⁰ These synopses are drawn from the following sources: DoD Environment, Safety, and Occupational Health office, "Defense Environmental International Cooperation Program" (Washington DC: Office of the Deputy Assistant Secretary of Defense (Environment, Safety and Occupational Health), OASD(EI&E), December 2015), <http://www.denix.osd.mil/international>; "Oil Spill Preparedness and Response-GCC Area," CENTCOM FY16 DEIC proposal (17 December 2015); and the AARs prepared by the CCMDs for the FY15 projects.

- *Promote interagency cooperation.*
 - PESF has, as one of its underlying tenets, the commitment to have the U.S. delegation drawn from across government agencies and to show by example the value of whole-of-government approaches.
 - Numerous DEIC engagements in the AFRICOM AOR have, over the years, demonstrated the lack of contacts and communication across host nation government agencies. By bringing representatives together in these workshops, such as the Senegal and Mozambique oil spill workshops, DEIC has provided opportunities for these agencies to establish those relationships and better understand each other's roles and responsibilities in a given area, such as oil spill response.
- *Contribute to others' regional leadership capacity and regional stability.* Several examples in the AFRICOM AOR illustrate DEIC's contribution to fostering regional leadership and stability. Collaboration with South Africa has helped strengthen its defense forces' ability to play a leadership role in the Southern African region. Horn of Africa workshops have encouraged Kenya and Ethiopia to undertake regional leadership roles on the key challenge of water security. On another front, DEIC has supported events to address ways to help prevent wildlife trafficking and poaching, which involves criminal and terrorist networks and attendant government and regional destabilization.
- *Save U.S. resources.* As a result of U.S. Navy environmental cooperation with Bahrain, which has been partly supported through DEIC projects, Bahrain has approved the U.S. Navy's use of a local incinerator to process medical waste and as much as 90 percent of the hazardous waste generated there. This agreement has resulted in avoiding more than \$1 million annually in hazardous waste disposal costs, while also minimizing potential disposal liabilities, reducing hazardous waste storage time, and reducing how far the waste must be transported for final disposal.

In addition to these identifiable impacts, some quantitative assessments can also be applied to DEIC activities. Such quantifiable metrics and their results (to the extent they are available) for all 22 DEIC projects executed in FY15 are provided in Table 3.

Table 3. Quantifiable Metrics for the DEIC Program and FY15 Results

Type of Metric	FY15 Results
Related to quantity of foreign engagements	
• Percentage of DEIC projects involving interaction with other nations	95% (20 of 21)
• Percentage of DEIC funding spent on engagements with other nations	91% (\$1.222K of \$1.346K)
• Ratio of the number of engagements with other nations to DEIC funding	20: \$1.346K, or \$67.3K average cost
• Number of foreign nationals engaged	1,000+
• Number of foreign nations engaged	61
Related to leveraging funding from other sources	
• Percentage of all DEIC projects that leveraged other funding	62% (13 of 21)
• Percentage of total spending on DEIC projects that was from other funding sources	35.3% (\$733K of \$2.079K)
• Number of CCMDs that leveraged other funding	4 (of 5)

B. Recommendations

In IDA's FY14 assessment of the DEIC program, it offered recommendations of ways to improve the program.¹¹ The essence of these recommendations boiled down to three core ideas:

- Tighten the timeline of the DEIC review and approval process;
- Consider fully funding DEIC in the first quarter of the CR, assuming CRs continue, or at least ensure that all CCMDs receive some funding in the first quarter; and
- Increase the DEIC budget in order to fund the unmet need demonstrated by the CCMD proposals that could not be funded within the approved budget. Also, with the creation of ASD(EI&E), if operational energy were added to DEIC's mandate, to further increase DEIC's funding line.

The ability of OSD to consider these recommendations for the FY15 program was limited by staff turnover. However, for the FY16 program, action has been taken in the first two of these areas and will be described more fully in IDA's next annual assessment.

¹¹ Susan L. Clark-Sestak, *Review of the Fiscal Year 2014 (FY14) Defense Environmental International Cooperation Program*, IDA Document D-5413 (Alexandria, VA: Institute for Defense Analyses, May 2015).

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Appendix A.

Defense Environmental International Cooperation (DEIC) FY15 Call for Proposals and Meeting Participation



OFFICE OF THE UNDER SECRETARY OF DEFENSE
3000 DEFENSE PENTAGON
WASHINGTON, DC 20301-3000

ACQUISITION,
TECHNOLOGY
AND LOGISTICS

MAY 06 2014

MEMORANDUM FOR DEPUTY ASSISTANT SECRETARY OF DEFENSE (STRATEGY)

DIRECTOR, JOINT STAFF
CHIEF OF STAFF, USAFRICOM
CHIEF OF STAFF, USCENTCOM
CHIEF OF STAFF, USEUCOM
CHIEF OF STAFF, USNORTHCOM
CHIEF OF STAFF, USPACOM
CHIEF OF STAFF, USSOUTHCOM

SUBJECT: Defense Environmental International Cooperation (DEIC) Program – Fiscal Year (FY) 2015 Call for Proposals

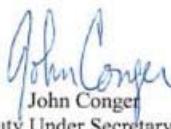
This memorandum provides the schedule and guidance to submit proposals for consideration in the DEIC Program allocation of FY15 resources. The DEIC Program provides expertise and funding to support security cooperation (e.g., enhance environmental risk management, build partner nation capacity, and increase allied/partner interoperability).

Eligible DEIC Program activities must incorporate collaboration with foreign defense ministries on environmental topics having implications for military installations, training or operations. I encourage you to submit proposals that include leveraging civilian agencies, international, and non-governmental organizations.

The planned milestones for the FY15 submission process are:

- No later than July 31, 2014 – Submittal of proposals based on guidance provided in Attachment - 1.
- October 2014 – Proposal evaluations conducted by representatives from the Office of the Deputy Assistant Secretary of Defense (Strategy) and the Office of the Director of the Joint Staff.
- November 2014 – Announcement of the approved FY15 DEIC Program.

My point of contact is Ms. Ninette Sadusky at Ninette.i.Sadusky.civ@mail.mil, or (571) 372-6897.


John Conger
Acting Deputy Under Secretary of Defense
(Installations and Environment)

Attachment:
As stated

DEIC Program – FY15 Proposal Submission Guidance

Combatant Commands should consolidate their proposals and submit by July 30, 2014 for FY15 resource consideration. A cover memo signed out at the GFO/SES level is appropriate. They should be emailed to Susan Clark-Sestak at sclark@ida.org, with a copy to Mr. Bill Mackie, Joint Staff at william.a.mackie.civ@mail.mil. The format of the proposals should be as follows:

1. Title of the proposal;
2. Organization (spell out) originating request, including DoD action officer, email address, and commercial and DSN phone number;
3. Description – Explain why this proposal and the country(ies) to be engaged are important and what the desired outcomes are.
 - a. General description of who, what, where, when, and how.
 - b. Why? - Cite support to specific objectives of the Guidance for the Employment of the Force and your Theater Campaign Plan. This is extremely important. The more context you provide, the more competitive your proposal is likely to be. We anticipate that this section of your proposal will be classified and should be submitted in a separate classified document to susan@ida.pentagon.smil.mil.
4. Documentation deliverables: For example, report, handbook, workshop, proceedings, etc.
5. Planned schedule for execution (include key planning meetings and events). Please consider the “80/20” rule – 80% obligation by end of July is mandatory. No more than 20% of funding may remain unobligated after that date.
6. Resource requirements: Provide a detailed excel spreadsheet that identifies:
 - a. The amount of funds requested from the DEIC Program.
 - b. How funds will be spent (e.g., number of travelers, transportation cost, per diem, publication costs, contractor support). The DEIC Program is O&M funding and subject to all restrictions of that appropriation.
 - c. Other resources that have been requested (e.g., Traditional Commander Activities, Warsaw Initiative Funds, Cooperative Threat Reduction, personnel, technology, etc.).
7. Additional Comments: Include any clarifying information that will aid our understanding in evaluating your proposals. This information should be clear, succinct, and proposal-specific.
8. Priority: COCOMs must prioritize their proposal requests if submitting more than one.
9. Compliance with all current guidance governing travel and conferences (if applicable) is required.

Appendix B.

Defense Environmental International Cooperation (DEIC) FY15 Approved Program



OFFICE OF THE UNDER SECRETARY OF DEFENSE
3000 DEFENSE PENTAGON
WASHINGTON, DC 20301-3000

DEC 17 2014

MEMORANDUM FOR DEPUTY ASSISTANT SECRETARY OF DEFENSE (STRATEGY)

DIRECTOR, JOINT STAFF
CHIEF OF STAFF, USAFRICOM
CHIEF OF STAFF, USCENTCOM
CHIEF OF STAFF, USEUCOM
CHIEF OF STAFF, USNORTHCOM
CHIEF OF STAFF, USPACOM
CHIEF OF STAFF, USSOUTHCOM

SUBJECT: Defense Environmental International Cooperation (DEIC) FY15 Approved Program

This memorandum announces the approved Fiscal Year 2015 DEIC Program projects to be funded, subject to the availability of funds. This was done in accordance with the guidance provided in the Acting Deputy Under Secretary of Defense (Installations and Environment) memorandum dated May 6, 2014 (Attachment 1). Implementation shall comply with Department of Defense guidance pertaining to travel, meetings, and security cooperation.

The table (Attachment 2) lists all the proposals received and funding levels for approved projects. Our office is ready to work with you on the details for execution of proposals in the "approved column." The "reconsider" column reflects proposals that will be re-evaluated for funding if additional money becomes available. My point of contact is Ms. Ninette Sadusky at (571) 372-6897 or ninette.i.sadusky.civ@mail.mil.

John Conger
Acting Deputy Under Secretary of Defense
(Installations and Environment)

Attachments:
As stated

Note: Attachment 1 is shown as Appendix A and is omitted in this Appendix.

Attachment 2

	Requested FY15 projects	Approved	Reconsider
DEIC FY15 Program Funding Level (thousands)	\$1,642	\$1,314	
Summary Totals (thousands)	\$3,041	\$1,314	\$1,273
TITLE			
Horn of Africa: Water Capacity Building Workshop (Ethiopia)	46	46	0
Environmental Officer Workshop (regional; hosted in Ghana, Kofi Annan Peacekeeping Center)	58	48	0
Oil Spill Preparedness and Response (Djibouti)	73	53	0
West Africa: Integrated Coastal Area Management (Mauritania)	44		39
Oil Spill Preparedness and Response IV: Executive Level Workshop (Gabon)	78		58
Coastal Resiliency and Regional Response Seminar (Angola)	67		47
Environmental Officer Workshop (Kenya)	49	10	0
Implications of Climate Change on Military Activities and Human Security (S. Africa)	69		49
Environmental Considerations in Military Operations (Niger)	44	34	0
Coastal Resiliency and Regional Response Seminar (Liberia)	67		57
Sustainable Range Awareness (Tanzania)	67	47	0
Environmental Protection and Coastal Resiliency (Senegal)	60		45
West Indian Ocean: Environmental Disaster and Oil Spill Response (Seychelles)	65		\$50
Environmental Protection and Coastal Resiliency (Guinea Bissau)	44		\$39
AFRICOM Total:	\$831	\$238	\$384
Basing Sustainability: Ensuring a Deployable Force thru Environ Mgmt (Oman)	82	82	0
Developing Afghan Ntl Secy Force Environmental SOPs (Afghanistan)	69	45	24
CENTCOM Total:	\$151	\$127	\$24
Arctic Security Forces Roundtable 2015 meetings (Iceland)	125	125	0
Environmental Considerations for Sustain Base Develop and Range Ops (Israel)	57	40	0
Senior Leader Environmental Security Seminar (regional; hosted in Croatia)	37		37
Caspian Sea Environmental Protection and Coastal Resiliency (Azerbaijan)	40	40	0
Strengthening Inter-Ministerial Dialogue on Maritime Disaster Response (Croatia)	42		42
Environmental Considerations in Military Operations (Estonia)	25		25
Natura 2000 and Range Management Regional Workshop (host TBD/Denmark)	34	34	0
Implications of Climate Change on Military Activities (Bulgaria)	45		45
Environmental Program Development (Montenegro)	24		24
Environmental Considerations in Base Closures (Albania)	28		28

Attachment 2

Coastal Resiliency and Oil Response Seminar III (Croatia)	44		44
Sustainable Range Management Bilaterals (Bulgaria, Denmark, Poland, Latvia, Croatia)	71		71
Green Maintenance Program Development (Albania)	27		27
Field Water Generation Field Work (Croatia)	31		31
Security Cooperation Planning (Iceland, Estonia, Latvia, other)	45		45
EUCOM Total:	\$675	\$239	\$419
Regional ESOH Risk Assessment Knowledge Exchange	15	13	0
NORTHCOM Total:	\$15	\$13	\$0
FY15 Pacific Environmental Security Forum (PESF)	212	212	0
Sea Level Rise Initiative (Kiribati)	82	0	0
Oil Spill Response Workshop (Thailand)	69		69
Expeditionary Energy Exercise - Thailand	0	0	0
Nilandhoo Island Waste Management Shared Vision Planning (Maldives)	120	35	85
Maldives National Defence Force Environmental Capacity Building (Maldives)	30		30
PACOM Total:	\$513	\$247	\$184
Bilateral Meetings - Establish Environ Security WG (Honduras; Brazil; Trin/Tobago)	31	31	
Monitoring and Predicting Weather Events (Brazil)	37	37	0
Ocean Monitoring (Brazil)	37		37
Meteorological and Oceanographic Capability and Needs Assess (Colombia)	26		26
Incorporating Army Net Zero - Mission Sustainability into the CAA	11	11	0
Orientation to Conf of the Armed Forces of Central America (CFAC)	21	21	0
Toward Net-Zero Waste - Contingency Ops Workshop (Honduras)	52		52
Well Water Pollution Assessment (El Salvador)	10		10
Military Panel at UN Climate Change Conference of the Parties (Peru)	28	0	0
SME Exchange on Renewable Energy and Water Sustainability (Colombia)	53		53
SMEE - Oil Spill Response	0	0	0
Environ Sustainability Demo for Exercise Related Construction (El Salvador)	31	0	0
DCC Environmental-Energy Subcommittee (Chile)	52	60	0
SME Exchange on Renewable Energy and Water Sustainability (Chile)	60		60
Defense-Related Environmental Issues Seminar (Inter-Amer Def College)	50	5	0
Renewable Energy and Resource Sustainability workshop (Chile)	24		24
Cultural Property Protection (FAHUM/Honduras)	48	0	0
SOUTHCOM Total:	\$571	\$165	\$262

Attachment 2

OSD Support for Quick Response on Herbicide Orange Issues	125	125	\$0
GLOBAL Total:	\$125	\$125	\$0
Programmatic Tracking and Research Support to DEIC (IDA)	160	160	0
PROGRAM SUPPORT Total:	\$160	\$160	\$0

Appendix C.

Defense Environmental International Cooperation (DEIC) FY15 Spreadsheet

As described in Chapter 1, this spreadsheet (see Table C-1) presents the complete list of projects proposed by the Combatant Commands (CCMDs) for DEIC funding in Fiscal Year 2015 (FY15). The Advisory Group identified projects that should have highest priority (funding for which is listed in the “Approved” column) and then those that were also valid projects but could not be funded due to budget constraints (listed in the “Reconsider” column). The amount of funding expended for each project is listed in the “Actual” column, and the amount of other funding is listed in the “leveraged funds” column.¹ For ease of identifying projects that were executed in FY15, these projects are all highlighted in blue.

¹ See Chapter 1 for more detail on how the Advisory Group evaluated each project and allocated funding.

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Table C-1. DEIC FY15 Projects

As of 30 September	DEIC Program Funding Level (thousands)	Requested FY15 Projects	Approved	Reconsider	Actual	Leveraged Funding
		\$1,642	\$1,386			
		Summary Totals (thousands)	\$3,061	\$1,406	\$1,201	\$733
	Title					
	AFRICOM Total:	851	330	312	356	290
Horn of Africa: Water Capacity Building Workshop (Ethiopia)		46	46	0	60	58
Environmental Officer Workshop (regional; hosted in Ghana, Kofi Annan Peacekeeping Center)		58	48	0		
Oil Spill Preparedness and Response (Djibouti)		73	53	0	73	10
West Africa: Integrated Coastal Area Management (Mauritania)		44		39		
Oil Spill Preparedness and Response IV: Executive Level Workshop (Gabon)		78		58		
Coastal Resiliency and Regional Response Seminar (Angola)		67		47		
Environmental Officer Workshop (Kenya)		49	10	0		
Implications of Climate Change on Military Activities and Human Security (S. Africa)		69	27	22	49	20
Environmental Considerations in Military Operations (Niger)		44	34	0		
Coastal Resiliency and Regional Response Seminar (Liberia)		67		57		
Sustainable Range Awareness (Tanzania)		67	47	0		
Environmental Protection and Coastal Resiliency (Senegal)		60	45	0	58.9	147
West Indian Ocean: Environmental Disaster and Oil Spill Response (Seychelles)		65		50	58	15
Environmental Protection and Coastal Resiliency (Guinea Bissau)		44		39		
Oil Spill Response Symposium (Mozambique)					37	10
Base Camp Planning (Mali)		20	20		20	30
CENTCOM Total:		151	127	24	54	0
Basing Sustainability: Ensuring a Deployable Force through Environmental Management (Oman)		82	82	0		
Developing Afghan National Security Force Environmental Standard Operating Procedures (SOPs) (Afghanistan)		69	45	24	35	
Monitoring and Reporting of Illegal Discharges in the Regional Organization for the Protection of the Marine Environment (ROPME) Sea Area		0	0	0	19	

EUCOM Total:	675	239	419	239	166
Arctic Security Forces Roundtable (ASFR) 2015 (Iceland)	125	125	0	125	62
Environmental Considerations for Sustainable Base Development and Range Operations (Israel)	57	40	0	40	18
Senior Leader Environmental Security Seminar (regional; hosted in Croatia)	37		37		
Caspian Sea Environmental Protection and Coastal Resiliency (Azerbaijan)	40	40	0		
Strengthening Inter-Ministerial Dialogue on Maritime Disaster Response (Croatia)	42		42		
Environmental Considerations in Military Operations (Estonia)	25		25		
Natura 2000 and Range Management Regional Workshop (host Denmark)	34	34	0	34	11
Implications of Climate Change on Military Activities (Bulgaria)	45		45	40	75
Environmental Program Development (Montenegro)	24		24		
Environmental Considerations in Base Closures (Albania)	28		28		
Coastal Resiliency and Oil Response Seminar III (Croatia)	44		44		
Sustainable Range Management Bilaterals (Bulgaria, Denmark, Poland, Latvia, Croatia)	71		71		
Green Maintenance Program Development (Albania)	27		27		
Field Water Generation Field Work (Croatia)	31		31		
Security Cooperation Planning (Iceland, Estonia, Latvia, other)	45		45		
NORTHCOM Total:	15	13	0	0	0
Regional Environment, Safety, and Occupational Health (ESOH) Risk Assessment Knowledge Exchange	15	13	0		
PACOM Total:	513	247	184	247	240
Pacific Environmental Security Forum (PESF) 2015 and Follow-on Activities (Thailand)	212	212	0	212	240
Sea Level Rise Initiative (Kiribati)	82	0	0		
Oil Spill Response Workshop (Thailand)	69		69		
Expeditionary Energy Exercise (Thailand)	0	0	0		
Nilandhoo Island Waste Management Shared Vision Planning (Maldives)	120	35	85	35	
Maldives National Defence Force Environmental Capacity Building	30		30		

SOUTHCOM Total:	571	165	262	165	37
Establish Environmental Security Working Groups (Honduras; Brazil; Trinidad/Tobago)	31	31		35	
Monitoring and Predicting Weather Events (Brazil)	37	37	0		
Ocean Monitoring (Brazil)	37		37		
Meteorological and Oceanographic Capability and Needs Assessment (Colombia)	26		26	30	
Incorporating Army Net Zero - Mission Sustainability into the Center for Army Analysis (CAA)	11	11	0		
Orientation to Conference of the Armed Forces of Central America (CFAC)	21	21	0		
Toward Net-Zero Waste - Contingency Ops Workshop (Honduras)	52		52		
Well Water Pollution Assessment (El Salvador)-2 Projects	10		10	35	
Military Panel at United Nations (UN) Climate Change Conference of the Parties (Peru)	28	0	0		
Subject Matter Expert (SME) Exchange on Renewable Energy and Water Sustainability (Colombia)	53		53		
Environmental Sustainability Demo for Exercise-Related Construction (El Salvador)	31	0	0		
Defense Consultative Commission (DCC) Environmental and Energy Subcommittee (Chile)	52	60	0	60	37
SME Exchange on Renewable Energy and Water Sustainability (Chile)	60		60		
Defense-Related Environmental Issues Seminar (Inter-American Defense College)	50	5	0	5	
Renewable Energy and Resource Sustainability Workshop (Chile)	24		24		
Cultural Property Protection (Fuerzas Aliadas Humanitarias (FAHUM)/Honduras)	48	0	0		
Research Paper on Guatemala (preparation for FY16 engagement)					
GLOBAL Total:	125	125	0	123.5	0
Office of the Secretary of Defense (OSD) Support for Quick Response on Herbicide Orange Issues	125	125	0	123.5	
PROGRAM SUPPORT Total:	160	160	0	161.5	0
Programmatic Tracking and Research Support to DEIC (Institute for Defense Analyses (IDA))	160	160	0	161.5	

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Appendix D. Illustrations

Figures

Figure 1. DEIC Program FY15 Spending, by AOR	4
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Tables

Table 1. DEIC Program Funding Returned by CCMD and Reasons for Return	2
Table 2. Impacts of DEIC Projects Executed by the Geographic CCMDs	24
Table 3. Quantifiable Metrics for the DEIC Program and FY15 Results	27
Table C-1. DEIC FY15 Projects	C-3

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Appendix F.

Abbreviations

AAR	After Action Report
AFPMB	Armed Forces Pest Management Board
AFRICOM	U.S. Africa Command
ANDSF	Afghan National Defense and Security Forces
AOR	Area of Responsibility
APAN	All Partners Access Network
APRI	Asia Pacific Regional Initiative
ARNG	Army National Guard
ASD(EI&E)	Assistant Secretary of Defense for Energy, Installations and Environment
ASFR	Arctic Security Forces Roundtable
CCMD	Combatant Command
CDMA	Conference of Defense Ministers of the Americas
CENTCOM	U.S. Central Command
CFAC	Conferencia de las Fuerzas Armadas Centroamericanas (Conference of the Armed Forces of Central America)
CR	Continuing Resolution
CSIR	Council for Scientific and Industrial Research
DCC	Defense Consultative Commission
DEIC	Defense Environmental International Cooperation
DOD	Department of Defense
DUSD(I&E)	Deputy Under Secretary of Defense for Installations and Environment
ERDC	U.S. Army Engineer Research and Development Center
ESOH	Environment, Safety and Occupational Health
EUCOM	U. S European Command
FAHUM	Fuerzas Aliadas Humanitarias (Allied Forces Humanitarian)
FFRDC	Federally Funded Research and Development Center
FY	Fiscal Year
IADC	Inter-American Defense College
IDA	Institute for Defense Analyses
IDF	Israeli Defense Forces
MEMAC	Marine Emergency Mutual Aid Center
MOU	Memorandum of Understanding
NATO	North Atlantic Treaty Organization
NGO	Non-Governmental Organization
NORTHCOM	U.S. Northern Command
OASD(EI&E)	Office of the Deputy Assistant Secretary of Defense for Energy, Installations and Environment

OSD	Office of the Secretary of Defense
PACOM	U.S. Pacific Command
PESF	Pacific Environmental Security Forum
ROPME	Regional Organization for the Protection of the Marine Environment
SANDF	South African National Defence Forces
SME	Subject Matter Expert
SOP	Standard Operating Procedure
SOUTHCOM	U.S. Southern Command
TCA	Traditional Commander's Activity
TSC	Theater Security Cooperation
UAE	United Arab Emirates
UN	United Nations
UNEP	United Nations Environmental Program
USA	United States Army
USAF	United States Air Force
USAREUR	U.S. Army Europe
USACE	U.S. Army Corps of Engineers
USN	United States Navy
WHINSEC	Western Hemisphere Institute for Security Cooperation

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